

REMARKS

Summary of the Examiner's Actions

The examiner rejected Claims 1 and 12 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant acknowledges the rejection of Claims 1 and 12 under 35 U.S.C. § 112, second paragraph.

The examiner rejected Claim 9 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant acknowledges the rejection of Claim 9 under 35 U.S.C. § 112, second paragraph.

The examiner objected to the drawings under 37 C.F.R. § 1.83(a) for failing to show every feature of the invention specified in the claims. Applicant acknowledges the objection to drawings.

The examiner rejected Claims 1-3, 5, 8-11 and 22-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 6,757,471 to Jeong, et al., ("Jeong"), in view of U.S. Patent Number 6,282,349 to Griffin ("Griffin"). Applicant acknowledges the rejection under 35 U.S.C. § 103(a).

The examiner rejected Claims 27-35 under 35 U.S.C. § 103(a) as being unpatentable over Jeong in view of Griffin. Applicant acknowledges the rejection under 35 U.S.C. § 103(a).

The examiner objected to Claims 4, 6, 7, and 36 as being dependent upon a rejected base claim but indicated that such claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant appreciates such indication.

The examiner indicated that Claim 12 contains allowable subject matter and would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112, second paragraph. Applicant appreciates such indication.

The examiner objected to Claim 37 as being dependent upon a rejected base claim but indicated that Claim 37 would be allowable as a claim depending from Claim 12 if the if the rejection of Claim 12 under 35 U.S.C. § 112, second paragraph is overcome. Applicant appreciates such indication.

The examiner objected to Claim 37 as being dependent upon a rejected base claim but indicated that Claim 37 would be allowable as a claim depending from Claim 12 if the if the rejection of Claim 12 under 35 U.S.C. § 112, second paragraph is overcome. Applicant appreciates such indication.

The examiner objected to Claim 12 as containing allowable subject matter and would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, Paragraph 2. Applicant appreciates such indication.

The examiner allowed 13-21. Applicant appreciates such indication.

Rejections under 35 U.S.C. § 112, second paragraph

The examiner rejected Claims 1 and 12 under 35 U.S.C. § 112, second paragraph, because the preamble indicates an optical device having an optical element but no limitation in the claims refers to the optical device or the optical element.

Claims 1, 12, and all necessary depending claims have been amended such that the non-specific phrases "first element" and "third element" have been replaced with the phrases "first optical element" and "second optical element," respectively. Similarly, Claims 1, 12, and all necessary depending claims have been amended such that the non-specific phrase "second element" has been replaced with the phrase "support member."

The phrases "optical element" and "support member" were originally found in the preamble to Claims 1 and 12 but have been deleted with this amendment.

Support for linking the phrases "first element" and "third element" to optical elements and for linking "second element" with support member or housing is found in the specification. Thus, the scope of Claims 1-12 have not changed but the amendment should make interpretation of the claim easier by removing any ambiguity caused by the use of non-specific terminology requiring reference to the specification.

Accordingly, Applicant respectfully submits that the rejection Claims 1 and 12 under 35 U.S.C. § 112, second paragraph has been traversed.

The examiner rejected Claim 9 under 35 U.S.C. § 112, second paragraph, because Claim 9 allegedly contradicts Claim 1 by referring to the second member (now support member) as an optical element. Applicant has cancelled Claim 9, without prejudice, and respectfully suggests that the examiner's rejection of Claim 9 under 35 U.S.C. § 112, second paragraph, is now moot.

Objections to the drawings

The examiner objected to the drawings because the second member in Claim 9 was not shown. Applicant has cancelled Claim 9, without prejudice, and respectfully suggests that the examiner's objection to the drawings is now moot.

Rejections under 35 U.S.C. § 103(a)

The examiner rejected Claims 1-3, 5, 8-11 and 22-26 35 U.S.C. § 103(a). In order to support a rejection under 35 U.S.C. § 103(a), "the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." MPEP § 2142, pg. 2100-121, 8th ed. "To reach a proper determination under 35 U.S.C. § 103(a), the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was

made.” *Id.* The first element in establishing a *prima facie* case of obviousness is that “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.” MPEP § 2143, pg. 2100-122, 8th ed. The second element is that there “must be a reasonable expectation of success.” *Id.* The third element is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” *Id.*

Claims 1-3, 5, and 8-11

The examiner rejected Claims 1-3, 5, 8-11 under 35 U.S.C. § 103(a) as being unpatentable over Jeong in view of Griffin. The structure disclosed in Jeong has been summarized by both Applicant's attorney and the examiner. Applicant believes it would be instructive to consider the true distinctions between Jeong and the present invention. Jeong is directed to an optical fiber block assembly for minimizing stress concentration. Optical fiber blocks are a specialized assembly wherein an optical fiber was constrained within a v-groove by the application of a flat cover and secured with an epoxy. See Fig. 3. The optical fibers made contact with each surface of the v-grooves and the cover. The three contact points resulted in undesirable pressure points on the optical fiber.

Jeong added ridges to the cover intended that would be transverse to the v-grooves when the optical fiber block was assembled. At that stage of assembly, the ridges make contact with and constrain the optical fibers in the desired position to produce a product essentially like the prior art. See Fig. 7. At this point, both the prior art and Joeng's optical fiber blocks would be etched and finished. During the etching process, a portion of the optical fiber block is removed. Because the front ridge of the Jeong has a limited width, the etching process effectively removes the front ridge and, because the front ridge extends below the bottom surface of the cover, the etching

process removes the undesirable contact point between the cover and the optical fibers. See Figs. 8 and 9.

First, because of the specialized nature of the assembly of optical fiber blocks such as disclosed by Jeong, Applicant respectfully submits that one would not look to Jeong for guidance in generally fixing optical elements within a support member.

Second, Applicant respectfully submits that the alleged pair of openings diametrically opposed with respect to the optical element is not disclosed by Jeong. Although Jeong does provide ridges on the cover such that when the optical fiber block is assembled a transverse opening is formed, the resulting optical fiber block is not properly construed as having a pair of openings as contemplated by the present invention or that the openings are diametrically opposed with relative to the optical element.

The examiner has taken the position that an opening is a two-dimensional (lack of an) object, for example the hole opening is the point where the hole can be accessed (i.e., the plane perpendicular to the central axis of the hole and bounded by the edges of the hole). Applicant is cognizant of section 2111 of the Manual of Patent Examining Procedure which directs that pending claims be given the "broadest reasonable interpretation consistent with the specification."

Assuming, *arguendo*, that the cover of Jeong discloses two openings, the two openings are not "diametrically opposed relative to said first optical element." As the examiner noted diametrical is defined as "exactly opposite." As Applicant encountered the same definition, the examiner's reference should also first define the term as "of, relating to, or along a diameter." For the two openings to be "exactly opposite" relative to the optical element, the two openings would necessarily be required to be oriented along a diameter of the optical element. As disclosed by Jeong, the openings indicated by the examiner lie along a tangent of the optical fiber. While they do lie on opposite

sides of the optical fiber they are not exactly opposite with respect to the optical fiber. In other words, in Jeong, a line passing through the center of the Jeong optical fiber and one of the Jeong openings would not pass through the opposite opening but a line passing through the center of the optical element in Claim 1 would also pass through both diametrically opposed openings. As such, there exists a structural distinction between Jeong and Claim 1 of the present application. If after reconsideration of Jeong the examiner maintains that the openings of the Jeong cover are diametrically opposed relative to the optical fiber and not merely opposed, Applicant respectfully requests clarification of the reasoning for this position.

Further, Applicant respectfully submits that it is the Jeong ridges and not the incidental resulting side openings that are material to the position of the optical fibers in the Jeong optical fiber block. Because it is the ridges that are of interest, there is no teaching or suggestion to use the side openings for fixing the position of an optical element which would render the present invention obvious.

Next, if the openings are two dimensional as asserted by the examiner, Jeong does not disclose an inside surface of the openings for the adhesive to adhere as required by Claim 1. Accordingly, Applicant respectfully requests that, in light of these non-obvious structural distinctions between Jeong and/or Jeong in combination with Griffin, the examiner withdraw the rejection of Claim 1 and Claims 2-3, 5, and 8-11 depending thereon under 35 U.S.C. § 103(a).

Claims 22-24

The examiner rejected Claims 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Jeong in view of Griffin. The current wording of Claim 22 apparently has resulting in some confusion as to the scope of the claim. Therefore, Claim 22 has been cancelled, without prejudice. New Claim 39 addresses the same subject matter as Claim 22 but, hopefully, more clearly. Claim 23 has been cancelled.

Claim 24 has been amended to depend from Claim 39. Accordingly, the rejection of Claim 22-24 has been rendered moot.

Claims 25 and 26

The examiner rejected Claims 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Jeong in view of Griffin. Claims 25-26 fall with 35 U.S.C. § 112, sixth paragraph and are to be given their broadest interpretation in light of and consistent with the written description. MPEP 2181.

Paragraph 0042 links the means limitations to the disclosed structure. Paragraph 0042 is not intended to be disclosure of the associated structure but a reference tying the claimed means to the structures disclosed in the specification. If properly interpreted in light of and consistent with the written description, Applicant believes Claims 27 and Claims 26 depending thereon to be allowable over the cited prior art for the reasons presented in response to the rejection of Claims 1-3, 5, and 8-11. For example, Applicant does not disclose "adhesive filling in the V-grooved slots in the support member" as suggested by the examiner. The disclosures of the present application and Jeong do not overlap in scope as Jeong describes the specialized construction an optical fiber block terminating an optical ribbon cable and the present application does not. Applicant respectfully requests that the examiner withdraw the rejection of Claims 25 and 26 under 35 U.S.C. § 103(a).

Claims 27 and 29-35

The examiner rejected Claims 27-35 under 35 U.S.C. § 103(a) as being unpatentable over Jeong in view of Griffin. As a matter of clarification, Claim 28 was cancelled in the previous Response.

Claim 27 has been amended to use language clarifying that the openings define volumes and that the openings provide access to the optical element being aligned.

Further, the pair of openings has been redefined as a first opening and a second opening to make subsequent references more clear.

Claim 29 has been amended to use antecedents consistent with amended Claim 27. Further, Claim 29 has been amended to broadened using the term "substantially" to avoid strict precision in the parallel alignment claimed therein.

For the reasons presented in response to the rejection of Claims 1-3, 5, and 8-11, Applicant believes Claim 27 and Claims 29-35 and 40 depending thereon to be allowable over the cited prior art. Applicant respectfully submits that the examiner's rejection of Claims 27 and 29-35 under 35 U.S.C. § 103(a) has been traversed.

Claim Objections

Claims 4, 6, 7, 36, and 37, are dependent claims deemed allowable by the examiner. Applicant has amended the base claims and/or argued the patentability of the base claims and believes the respective base claims to be allowable over the cited prior art. Applicant reserves the right to represent Claims 4, 6, 7, 36, and 37 in independent forms in the event that the base claims are not found to be allowable.

Miscellaneous Amendments to the Claims

While reviewing the present claims, Applicant noted that Claim 37 did not end with a period and has added the period. Further, Applicant noted that Claims 27 and 32 included two colons following the preamble and has removed the duplicative colon. Applicant respectfully submits that these changes in punctuation do not affect the scope of the claims.

New Claims

Applicant has added two new independent claims and one dependent claim that remain within the scope of the disclosure and avoid the prior art. Claim 38 is clearly distinguished from the cited prior by replacing the limitation of "a pair of openings,"

which arguably encompasses two-dimensional objects as suggested by the examiner with the limitation "a pair of through-openings," which avoids the disputed two-dimensional connotation. Jeong discloses a single through-opening having two openings but does not disclose a pair of through-openings. Further, Claim 38 relaxes the requirement that the pair of through-openings be diametrically opposed. It is respectfully submitted that the specification does not require that the openings/through-openings be diametrically opposed.

Claim 39 clearly identifies the relationship between the surfaces of the support member, the optical member, and the adhesive. The language concerning a myriad of longitudinal and parallel surfaces has been eliminated and the structural limitations more clearly identified. It is respectfully submitted that no scope from Claim 22 is being disclaimed.

In the previous response, the limitations of Claim 28 were added to Claim 27, the base claim from which Claim 28 depended and Claim 28 was cancelled. Claim 40 reintroduces the subject matter of Claim 28 consistent with Claim 27 as currently amended and the corresponding limitations have been deleted from Claim 27.

Applicant is mindful of the examiner's time and believes that the addition of Claims 38-40 should not require the examiner to perform a further search or otherwise pose a substantial burden to the examiner. Accordingly, Applicant respectfully requests consideration of Claims 38-40 by the examiner.

Summary

In view of the amendment of Claims 1, 2, 8, 10-12, 24, 27, 29, 32, and 37, the addition of Claims 38-40, the cancellation of Claims 9, 22, and 23 without prejudice, and the arguments presented herein, it is believed that the above-identified patent application is in a condition for the issuance of a Notice of Allowance. Such action by the examiner is respectfully requested. If, however, the examiner is of the opinion that

any of the drawings or other portions of the application are still not allowable, it will be appreciated if the examiner will telephone the undersigned to expedite the prosecution of the application.

Please charge any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 16-1910.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "J. Hoffmeister", with a stylized flourish at the end.

J. Kenneth Hoffmeister
Registration Number 43,675

PITTS AND BRITTIAN, P.C.
P.O. Box 51295
Knoxville, Tennessee 37950-1295
(865) 584-0105 Voice
(865) 584-0104 Fax